DECLARATION OF MATTHEW HARREN ISO GOOGLE LLC'S RESPONSE TO THE COURT'S 10/27/22 ORDER TO SHOW CAUSE (DKT. 784)

Redacted Version of Document Sought to be Sealed

UNITED STATES DISTRICT COURT

NORTHERN DISTRICT OF CALIFORNIA OAKLAND DIVISION

CHASOM BROWN, et al., individually and on behalf of all similarly situated, Plaintiffs, vs. GOOGLE LLC, Defendant.	Case No. 4:20-cv-03664-YGR-SVK

DECLARATION OF MATTHEW HARREN

I, Matthew Harren, declare as follows:

1. I am a [redacted] Logs Technical Lead at Google. I have been employed at Google since July 2007 and in my current position since November 2017. In my current role, I oversee security and privacy infrastructure for Google's tens of thousands of [redacted] logs, including how to delete and manage access to the data. The [redacted] logging infrastructure is used by every product area at Google, to measure how our systems are performing, debug problems, and study aggregate usage.

2. I make this declaration based on personal knowledge and, if called to testify, I could and would competently testify to such facts.

3. In May 2022, I began working on an investigation to identify logs that contain fields for boolean bits called "is_chrome_incognito", "is_chrome_non_incognito_mode", and "maybe_chrome_incognito_do_not_use_without_consulting_legal_and_ads_identity_team" (collectively, the "Incognito-detection bits").

4. Prior to working on this investigation, I was not aware of the Incognito-detection bits.

5. The investigation team was aware that certain [redacted] logs contained fields for the Incognito-detection bits, and wanted my assistance to determine whether other [redacted] logs might

also contain those fields. It is likely that the Incognito-detection bits would exist in [redacted] logs, rather than other types of logs, because [redacted] is the primary data store for collecting server logs of consumer-facing products. In my experience, fields that might be used for aggregate measurement—such as the Incognito-detection bits—are usually stored in [redacted] logs.

6. There is no tool to search complete lists of fields in [redacted] logs. There are over [redacted] logs, each containing many populated fields—[redacted]. Conducting a complete search of fields in these logs would have been extremely expensive and time-consuming. To my knowledge, no such search has ever been conducted.

7. To attempt to fulfill the investigation team's request, I offered instead to write a custom script to query a tabular database operated by the [redacted] team called [redacted].

8. The [redacted] table contains statistical information about fields in certain [redacted] logs, based on small samples of data from those logs. Specifically, a dedicated processing job scans a random sample of approximately [redacted] of [redacted] log traffic each day, and populates the [redacted] database with basic information (*e.g.*, log location and size) about the fields contained in that sample. The [redacted] table is not, nor is it designed to be, a comprehensive or fully accurate list of fields in [redacted] logs. For example, it will not contain any data about fields that were not populated in the [redacted] of sampled data, including whether those fields are present in a given log

9. The primary use case for the [redacted] table is to [redacted]. It is not intended to be complete enough to make definitive statements about the contents of a given log. Nonetheless, I considered it a useful tool for the confirmatory analysis I performed for this investigation.

10. The [redacted] table is used only by a limited number of engineers. Most engineers using [redacted] would not need to use this table, and may not be aware of it.

11. The custom script I wrote to assist the investigation team queried [redacted] to return a list of [redacted] logs in the last [redacted] of data populated to

that database (*i.e.*, a random [redacted] sample of [redacted] log traffic over the past [redacted]) that contained fields for the Incognito-detection bits.

12. I provided the results of the script to the investigation team.

I declare under penalty of perjury that the foregoing is true and correct.

Executed on the 29 day of November 2022 at Sunnyvale, California.

By: DocuSigned by: Matthew Harren 9E915EC0933240A...
Matthew Harren